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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/371,588	08/10/1999	ARCHIBALD W. SMITH	99-038-TAP	9428

7590 10/18/2005

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EXAMINER
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SNIEZEK, ANDREW L

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/371,588

Applicant(s)

SMITH, ARCHIBALD W.

Examiner

Andrew L. Sniezek

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4,8-17 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-17 and 27 is/are allowed.
- 6) ☒ Claim(s) 4,25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The following action is taken in view of the after final amendment filed 9/6/05 and subsequent updated search. The Finality of the previous office action is withdrawn in view of the newly discovered art.

#### ***Claim Objections***

2. Claims 25, 26 and 27 are objected to because of the following informalities: It appears that the word "superposition" should be replaced by -superimposition-. Appropriate correction is required.

3. As a note: The claimed superimposition of coherent radiation emitted from the at least one source to form at least two spots on the medium is not the same as having two spots that are superimposed on the medium. The applied art is being applied in view of the claims as presented.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Shimano et al. (US 20040196771A1)

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Re claim 25: Shimano et al. teaches an optical tracking system (figure 1) comprising at least one source of coherent radiation (101), an interference generating device (701) which causes a superimposition of the light to form at least two spots (801, 802, 803) on a recording medium as seen in figure 8. As seen for example in figure 2 these spots can be positioned a distance from a track and at different lateral locations, which contribute to a tracking error signal, i.e. magnitude and direction with respect to a desired location.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimano et al. in view of Farnsworth et al. (5,121,371).

The teaching of Shimano et al. is discussed above and incorporated herein. Claim 26 additionally sets forth that the spots are one quarter of a track spacing between successive tracks, which although not taught by Shimano et al. is well known in the art as taught by Farnsworth et al. (figures 10A-10B) which allows for a higher track density. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Farnsworth et al. into the arrangement of Shimano et al. for increased recording capabilities.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimano et al. in view of Farnsworth et al. and Roth et al. (4,958,245).

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Re claim 4: The teaching of Shimano et al. is discussed above and incorporated herein. Note also figure 20 which teaches a two beam arrangement. Claim 4 additionally sets forth that the spots are one quarter of a track spacing between successive tracks, which although not taught by Shimano et al. is well known in the art as taught by Farnsworth et al. (figures 10A-10B) which allows for a higher track density. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Farnsworth et al. into the arrangement of Shimano et al. for increased recording capabilities. Claim 4 additionally sets forth to use an optical tracking system in a tape environment which although not taught by Shimano et al. or Farnsworth et al. is well known to similar arrangements for a tape system. See Roth et al. (4,958,245) column 12, lines 20-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the teaching of Shimano et al. and Farnsworth et al. as applied so that it is used not only for a disk arrangement but also a tape arrangement since the type of medium used would not change the operation of the optical tracking arrangement.

#### ***Allowable Subject Matter***

9. Claims 8-17 and 27 are allowed.

Reasons for the allowable subject matter of claims 8-17 and 27 has been provided in previous office actions.

#### ***Response to Arguments***

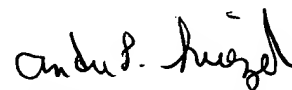
10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 571-272-7563. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrew L. Sniezek  
Primary Examiner  
Art Unit 2651

A.L.S.  
10/13/05